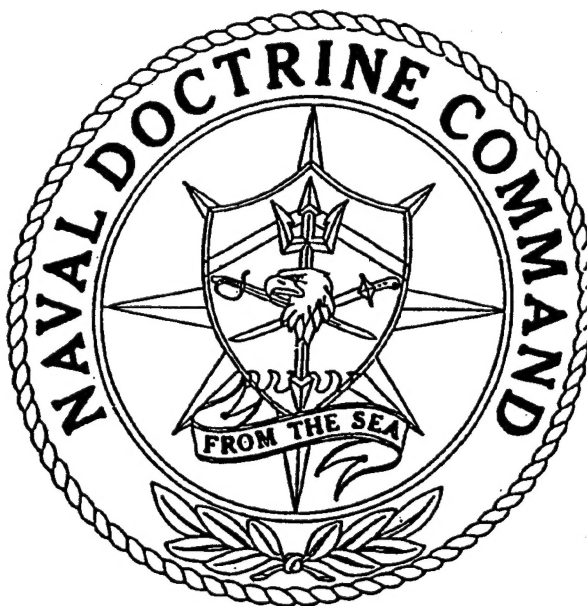


3-00-011

NAVAL DOCTRINE COMMAND

Norfolk, Virginia



DTIC QUALITY INSPECTED 2,

The Influence of French Naval Thought on the U.S. Navy
by

Dr. James J. Tritten

December 1995

Approved for public release; distribution unlimited.

19960417 032

NAVAL DOCTRINE COMMAND
Norfolk Virginia

Rear Admiral Michael L. Bowman
Commander

The work reported herein was prepared by the Naval Doctrine Command. This report reflects the opinion of the author only and does not represent the views or policies of the Naval Doctrine Command, the U.S. Navy and Marine Corps, or the Department of Defense.

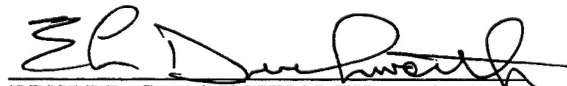
Reproduction of all or part of this report is authorized.

This report was prepared by:



DR. JAMES JOHN TRITTEN
Doctrine Specialist

Reviewed by;



EDWARD L. DUCKWORTH, CAPT USN
Division Director
Awareness Division

Released by;



C. M. deGRUY, CAPT, USN
Chief of Staff

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED			1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION/AVAILABILITY OF REPORT APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED		
2b. CLASSIFICATION/DOWNGRADING SCHEDULE					
4. PERFORMING ORGANIZATION REPORT NUMBER(S) NDC 3-00-011			5. MONITORING ORGANIZATION REPORT NUMBER(S)		
6a. NAME OF PERFORMING ORGANIZATION NAVAL DOCTRINE COMMAND		6b. OFFICE SYMBOL N7DS		7a. NAME OF MONITORING ORGANIZATION	
6c. ADDRESS (CITY, STATE, AND ZIP CODE) 1540 GILBERT STREET NORFOLK, VA 23511-2785			7b. ADDRESS (CITY, STATE, AND ZIP CODE)		
8a. NAME OF FUNDING/SPONSORING ORGANIZATION		8b. OFFICE SYMBOL		9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER	
8c. ADDRESS (CITY, STATE, AND ZIP CODE)			10. SOURCE OF FUNDING NUMBERS		
			PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO. WORK UNIT ACCESSION NO.
11. TITLE (INCLUDE SECURITY CLASSIFICATION) THE INFLUENCE OF FRENCH NAVAL THOUGHT ON THE U.S. NAVY					
12. PERSONAL AUTHOR(S) DR. JAMES J. TRITTEN					
13a. TYPE OF REPORT FINAL	13b. TIME COVERED FROM JUN 85 TO DEC 85	14. DATE OF REPORT (YY,MM,DD) 95,12,19		15. PAGE COUNT 20	
16. SUPPLEMENTARY NOTATION PRESENTED AT CENTENNIAL CELEBRATION OF FRENCH NAVAL WAR COLLEGE					
17. COSATI CODES			18. SUBJECT TERMS <i>Continue on reverse if necessary and identify by block number</i>		
FIELD	GROUP	SUB-GROUP	DOCTRINE	MILITARY DOCTRINE	FRENCH NAVY
			NAVY DOCTRINE	FRENCH NAVY DOCTRINE	FRANCE
			NAVAL DOCTRINE	FRENCH NAVAL DOCTRINE	
19. ABSTRACT (CONTINUE ON REVERSE IF NECESSARY AND IDENTIFY BY BLOCK NUMBER)					
<p>WHEN THE US NAVAL DOCTRINE COMMAND WAS ESTABLISHED IN 1993, IT REVIEWED THE LESSONS OF HISTORICAL NAVAL DOCTRINE DEVELOPMENT BY THE WORLD'S GREATEST SEA POWERS. FRANCE WAS ONE OF THOSE COUNTRIES WHICH HAS A LONG-ESTABLISHED NAVAL TRADITION AND A RICH HISTORY OF NAVAL DOCTRINE. WHEN THE COMTE DE GRASSE CAME TO THE AID OF AN EMBRYONIC US FIGHTING FOR HER INDEPENDENCE, HIS DECISIONS OFF THE VIRGINIA CAPES IN 1781 WERE SHAPED BY A SOUND DOCTRINE THAT GAVE PRIMARY IMPORTANCE TO THE PROTECTION AND SUPPORT OF ACTIONS ASHORE. THERE IS A ROBUST HISTORY OF FRENCH NAVY DOCTRINE WHICH HAS HAD A DIRECT INFLUENCE ON THE US NAVY. IN AN EFFORT TO INVESTIGATE IMPROVEMENTS TO DOCTRINE, NDC HAS REVIEWED THE SPECIFIC WRITINGS OF FRENCH ADMIRAL RAOL CASTEX. CASTEX'S THEORIES OF MANEUVER WARFARE ARE OF IMMEDIATE INTEREST TO THE USN TODAY. REPORT CONCLUDES WITH ASSESSMENT OF WHY SUCH THEORIES ARE OF INTEREST TO THE USN UNDER CURRENT CONDITIONS. FIRST, USN MAY NOT BE ABLE TO OPERATE TO ITS FULL CAPABILITIES DUE TO EXTERNAL CONSTRAINTS. SECOND, USN DOES NOT DEPLOY AS A WHOLE. THIRD, USN IS STRETCHED THIN. FOURTH, MANEUVER THEORY EMPHASIZES SOUND PLANNING. FIFTH, IT IS NECESSARY TO MASTER MANEUVER BEFORE WE ATTEMPT TO ADDRESS INFORMATION WARFARE OR OTHER CONCEPTS IN ANY NEW REVOLUTION IN MILITARY AFFAIRS.</p>					
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT X UNCLASSIFIED/UNLIMITED SAME AS RPT. DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED		
22a. NAME OF RESPONSIBLE INDIVIDUAL JAMES J. TRITTEN			22b. TELEPHONE (INCLUDE AREA CODE) (804) 445-6851/0567		22c. OFFICE SYMBOL N7DS

THE INFLUENCE OF FRENCH NAVAL THOUGHT ON THE U.S. NAVY

by
James J. Tritten¹

In a major regional contingency fought some years ago, indigenous ground forces converged on a narrow peninsula in the southern part of their country where they cut off part of a foreign army of occupation. This foreign army held a small seaport from which the commander planned to disrupt lines of communication. The enemy commander anticipated being supported, or if necessary, evacuated by sea. The enemy navy was one of the best in the world. The indigenous country had no navy of its own to speak of and had sought an arrangement with a major world seapower, France, to remedy this deficiency.

France had already provided the indigenous forces with combat-experienced ground officers and modern military equipment. The French now landed a major ground force in the northern part of the country and a French fleet sailed in support from a forward-deployed location. The French Navy commander detached a small portion of this fleet to land additional troops and to also blockade the occupied seaport. Enemy navy forces soon arrived and were surprised to find the numerically superior French.

The French fleet commander, operating within an established navy doctrine, knew that, if he remained in a defensive posture near the seaport, such a maneuver would doom another French squadron which was soon to arrive with additional troops, artillery, and other supplies. Keeping in mind his main objective, the French fleet commander seized the initiative and tactically maneuvered his forces to offensively meet the enemy fleet far enough out to sea to permit the safe arrival of the

¹ The views expressed by the author are his alone and do not necessarily represent those of the U.S. government, Department of Defense, or the U.S. Navy. The author would like to acknowledge the contributions and comments of Dr. Hervé Coutau-Bégarie; Dr. Eugenia C. Kiesling, U.S. Military Academy; Dr. Gideon Y. Akavia, Center for Military Analyses, Haifa, Israel; Dr. Roger Barnett, Naval War College; Dr. Michael Isenberg, U.S. Naval Academy; Dr. John Ballard, Armed Forces Staff College; Dr. Michael Palmer, East Carolina University; Captain Alain Delbury, FN, French Military Mission to the Supreme Allied Commander, Atlantic; Commander Christian Canova, FN, Naval Doctrine Command, and Captain James M. Wylie, USN, U.S. Naval Attaché to France.

resupply squadron. The enemy met the French challenge but was unable to gain any advantage. The French fleet commander engaged the enemy but husbanded his own assets without a serious decisive engagement, keeping the enemy fleet out at sea for four days.

Ships from the French resupply squadron safely landed their troops and equipment and then sailed north, embarked coalition ground forces, and brought them to the area of the occupied seaport. Coalition forces massed around the seaport and engaged in bloody but successful land warfare against an entrenched enemy. The enemy capitulated in the face of the repeated assaults, no possible escape, and the lack of reinforcement. The French fleet maintained station and provided security for the victorious coalition forces by deterring a second but belated attempt by the enemy to reinforce, resupply, or evacuate enemy forces at the seaport.

The above example describes, in reality, the actions taken by French, British (enemy), and American (indigenous) forces off the Virginia Capes and at Yorktown. The United States owes a great debt to the French Navy and Marine Infantry for the military victory over Great Britain in 1781, which resulted in our independence. It was therefore appropriate that the United States Naval Doctrine Command review the legacy of navy doctrine in France. The Commander of the Naval Doctrine Command felt that, in order to come to grips with the concept of doctrine and doctrine at the operational-level of warfare, it was appropriate to review the lessons of history of the greatest sea powers from the world.

It is appropriate to state what I mean by doctrine [*doctrine d'emploi*], so that it is clear during the remainder of this paper. Simply put, doctrine is how to do a task. In the military these tasks include combat at the operational and tactical-levels of warfare. Any definition of doctrine includes the theory of how to perform the task and the actual behavior of people. Doctrine thus answers why tasks are performed in a particular manner. In the field of military and naval doctrine around the world, the implication of such a definition is that the researcher can then look for the official written doctrine as well as review the actions of military and naval officers in actual combat. Since doctrine does not have to be written, we can find evidence of its existence by looking at history and ascertaining if the officer was punished for how he went about performing his combat tasks. Doctrine in the U.S. Navy is the tasks that are present at the operational-level of warfare; that level between strategy and tactics.¹

This paper will first provide the results of my review of the doctrine in the French Navy over the past hundreds of years. It will next articulate lessons and my own conclusions from that history. These conclusions will be from the American perspective. Finally, I will address a subject of current interest to the U.S. Navy and Marine Corps, "maneuver" warfare, a doctrine that has a long tradition in the great history of the French Navy. The bottom-line is that I was able to find significant numbers of very good ideas by looking at the history of one of the world's preeminent historical sea powers. It is to that history that I will now turn.

My Review of French Navy Doctrine²

France was one of the first modern sea powers to examine past sea battles of other navies in order to learn combat lessons. Jean-Baptiste Colbert, under Louis XIV, studied the combat effectiveness of the English Navy in its years of war with the Dutch (1652-1674). A study of past combat, with updating for present circumstances, is a basic part of all doctrinal development even today. The Naval Doctrine Command's study of the French Navy revealed that France has always been a world leader in the development of doctrine for naval forces.

Credit for doctrinal development in the French Navy belongs to that great combat leader Admiral Anne-Hilarion de Costentin, Comte de Tourville. Tourville was not only a victorious warrior, but also the driving force behind the development of the French Navy into a modern fighting force. His *Signals and Instructions* (1690) and other tactical and signaling manuals were the first such written French Navy doctrine and were credited, in part, for his victories. This theme of written doctrine contributing to combat success is one that repeats itself over the subsequent centuries. It is a lesson that the U.S. Navy is currently re-learning. Tourville also teaches us that combat prowess and doctrinal development go hand in glove.

Over the many following years, France produced numerous excellent doctrinal publications from a wide variety of authors. Sébastien Le Prestre, Marquis de Vauban, an influential builder of fortifications, wrote a doctrinal pamphlet *Mémoire de la course* [also known as *Mémoire sur la caprerie*], which outlined a doctrine for *guerre de course*. Privateers, such as the famous Jean Bart, operated successfully under this doctrine. This would not be the only time that ground officers prepared doctrine for fleets. *Guerre de course*, the favored doctrine of many ground

officers, is a doctrinal theme that reappears over the years in France and finds its way to the U.S. and many other countries.

Of course Père Paul Hoste's book on naval tactics, *L'Art des armées navales ou traité des évolutions navales* (1697), was recognized as an outstanding treatment and was translated and used in other navies. Hoste emphasized what was possible when the commander maintained strict control of his limited assets. Control of fleet units in order to maximize combat potential is one of the basic elements of all navy doctrine. It is a theme that we must consider today as governments downsize navies to economize on spending. As we have fewer and fewer fleet assets, commanders must ensure that they maximize combat potential--a goal made easier with doctrine.

French Navy doctrine generally made the object of combat clear to the on-scene commander--the defense of the convoy rather than the defeat of the attacking force. During the Second Battle off Cape Finisterre (1747), a significantly smaller escort force under Commodore Desherbiers, Marquis de Létenduère, fought gallantly to allow the convoy of 250 merchants to escape capture by British Rear Admiral Edward Hawke.

This theme of how best to ensure the arrival of convoys repeats itself throughout all naval history. Convoy defense doctrine forms the basis of many controversies over the Cold War-era U.S. Navy Maritime Strategy.³ Which was the proper method? Offensive attacks in the Norwegian and Barents Seas or the invitation to fight in the mid-Atlantic? We should look to history to see which way has worked most often.

Similarly, French Navy doctrine has generally made it clear what the proper role of the fleet was in the defense of forces ashore. The French fleet at Minorca in 1756 operated in support of ground forces under a doctrine in which the object of the tactical action between fleets was to protect the beachhead and not necessarily to attempt to sink the attacking force. This is another theme that repeats itself throughout all naval history and forms the basis of the controversy during World War II over the actions of Admiral Raymond Spruance, USN, during the Battle of the Philippine Sea (June 1944) and Admiral William Halsey, USN, off Cape Engaño during the Battle of Leyte Gulf (October 1944). The lack of this type of doctrine to provide advice to the American Pacific Fleet during World War II was a mistake that we cannot afford to repeat.⁴

Under Louis XV's Minister of Marine, Étienne François, Duc de Choiseul, excellent formal fighting instructions were issued and serving Navy officers wrote important doctrinal publications. Captain Sébastien François de Bigot, Vicomte de Morogues, published a textbook for cadets of the academy at Brest, *Tactique navale ou traité des évolutions et des signaux* (1763). Morogues accepted the role of élan, bravery and experience as necessary ingredients for success when a smaller force faced a larger one. Morogues also argued that one should mass strength against weakness. Both topics are of interest to the U.S. Navy today as it attempts to break free from the attrition-oriented strategies and doctrine of "brute force."

The French victory by Admiral Louis Guillouet, Comte d'Orvilliers, at Ushant (1778) over Admiral Augustus Keppel was, in part, a result of effective French doctrine. Victories such as Ushant were assisted by excellent tactical and signaling manuals. A short book about navy tactics appeared in 1787, *L'art de la guerre sur mer, ou tactique navale*, by Commodore Jurien, Vicomte de Grenier. It stressed massing strength against weakness much as did Morogues' *Tactique Navale*. Admiral Clause François, Comte d'Amblimont's *Tactique navale, ou traité sur les évolutions, sur les signaux et sur les mouvemens de guerre* (1788), stressed innovation. D'Amblimont advanced the idea of breaking the fleet into separate tactical groups (*pelotons*) with different functions. Today, task groups are a routine form of naval organization in the world's navies and form one of three major doctrinal messages in the U.S. Navy's *Naval Warfare*, NDP-1.⁵

French naval writings during the years of war with Britain included many sophisticated doctrinal issues still being debated today in many navies. One of these issues is the correct placement of the fleet commander. Should the admiral ride at the van or at the center of a formation? Should he ride in a heavily armed ship or in a separate command ship? French Navy doctrine once required that commanders fight from frigates. A flag officer embarked in a frigate could oversee the battlespace better and his signals could be better seen. The U.S. Navy today is still wrestling with where to best place the admiral.

Navy doctrine under the French monarchy was extremely thorough but biased by factors beyond the control of navy officers. Change in type of government, due to the French Revolution, was to have a dramatic impact on navy doctrine as was the loss of the rich history and lessons learned by monarchist navy officers--who had paid for their lessons in blood. What the

navy of the new Republic lacked in doctrinal development, it made up for in spirit. The Battle of the Thirteenth Prairial [known in Britain as the Glorious First of June] (1794) was one of the greatest convoy battles in navy history. Rear Admiral Louis Thomas, Comte de Villaret de Joyeuse, commanded the Brest fleet. Villaret de Joyeuse's objective was to ensure the safe arrival of a 130 ship convoy with supplies from America.

According to both strategy and doctrine, the loss of the Brest fleet at the Battle of the Thirteenth Prairial was an acceptable price to pay for the safe arrival of this convoy. British doctrine emphasized combat over the escort force, hence today we have histories in two nations which use this same battle to illustrate victories. Doctrine can thus help define victory. Despite the incorporation of warfighting spirit into military and navy doctrine, warfare during the age of sail in the post-monarchist-era indicates that spirit alone is unable to make up for materiel and training deficiencies. This is a lesson that we need to remember today.

The embryonic U.S. Navy borrowed one of its first tactical manuals from France. Captain Thomas Truxtun, USN, published a signaling book based upon a signaling system prepared in 1746 by Admiral Bertrand François Mahé de La Bourdonnais. Since the American version appeared during the "Quasi-War" with France (1798-1801), the publisher obliterated all reference to the original French source.⁶ Nonetheless, the original signals system of the U.S. Navy was based upon an excellent French model.

New doctrinal thinking emerged following the Napoleonic-era with the end of the age of sail. Lieutenant Louis-Narcisse Chopart prepared a tactical textbook for sailing ships in 1839 which was translated in 1859 into English and subsequently used at the U.S. Naval Academy. Admiral Louis Bouët-Willaumez wrote a series of publications which pioneered advances in French Navy doctrine. His *Batailles de terre et de mer* (1855) outlined provisional tactics for screw propelled steamships. This doctrine included ensuring a superior force with a combined effort at the decisive point--a theme that the U.S. Navy is currently investigating today.

French Navy thought again flourished at the end of the nineteenth and beginning of the twentieth centuries. After years of warfare with the British, the legacy of a "defensive" navy doctrine, and preference to *guerre de course* and attrition warfare over warfare of annihilation and the decisive battle, the French Navy considered some different ideas. The *École supérieure*

de guerre de la Marine was founded one hundred years ago in 1895 and quickly became a center for advanced military thought. *La grande guerre*, favoring the decisive battle and deep sea warfare (*guerre de haute mer*), in order to achieve command of the sea, occupied the center of the writings of a number of French Navy officers at their war college in the late 19th and early 20th centuries.

Writings supporting *la grande guerre* primarily included: Admirals Jurien de la Gravière, "*La marine aujourd'hui*," *Journal of the RUSI* [Royal United Services Institute for Defence Studies] (1874) and Vice Admiral Gabriel Darrieus, *La guerre sur mer* (1907). Darrieus' *War on the Sea* was translated into English and published by the U.S. Naval Institute in 1908. The *War on the Sea* book came from a series of lectures delivered at the French Naval War College. Other writings included then-Commander René Daveluy's, *Etude sur la stratégie navale* (1905), *Leçons de la guerre russo-japonaise*, *La lutte pour l'empire de la mer* (1906), and *L'esprit de la guerre navale* in three volumes (1909-1910). Daveluy's *The Genius of Naval Warfare* was translated into English and published by the U.S. Naval Institute.

These writings paralleled those of American Rear Admiral Alfred Thayer Mahan. The mainstream of French Navy officer corps thought was supported by concepts found in Mahan's writings. The 1910 *The Naval Battle: Studies of the Tactical Factors*, by Lieutenant Adrien Edouard Baudry, was translated into English for use by American officers. Indeed, the writings of Darrieus, Daveluy, and Baudry were provided to ships' libraries by the U.S. Navy Department.

The alternative view to *la grande guerre* was championed by another group of officers and civilian thinkers whose movement became known as the *jeune école* (new school). Official navy doctrine soon returned under the influence of Admiral Darrieus and professional officers attached to the *École supérieure de guerre de la Marine*, but the ideas of the *jeune école* still surface from time to time in France and in other nations.

Following World War I, the French Navy came under the influence of the writings of Admiral Raoul Castex. His five volume *Théories stratégiques*⁷ is perhaps the most complete theoretical survey of maritime strategy to ever appear. The essence of Castex's work can be found in a summary of some 2,600 pages of original French text recently translated into English by the U.S. Naval Institute into 428 pages as *Strategic Theories*.⁸

Castex completed an additional eighteen major works and more than fifty journal articles.

Castex's conclusions were that decisive battles were rare in history and that the enemy battle fleet was not always the main object of an operation or battle. The centerpiece of his writings are strategic *manoeuvre* and not battle. Castex recognized that his task was to provide doctrine for a second-ranking navy and not one that would ever hope to challenge the British. Thus he formulated the concept of *la force organisée*, the main force which could be mustered for a limited counteroffensive against a superior enemy. Castex gave significant attention to commerce raiding, raids, blockade, mine, and amphibious warfare.

Castex's *Les idées militaires de la marine du XVIII^{me} siècle: De Ruyter à Suffren* (1911), points out the differences between official doctrine and actual tactical practices. Castex wrote that standing doctrine should be abandoned if warranted by the tactical situation. This issue is extremely contentious in the U.S. today and forms the basis of disagreements over the role of doctrine in the various armed Services.

Castex's writings appeared to have had only modest direct impact on the behavior of French governments. Students at the *école de guerre navale* were still educated in traditional French naval doctrine of *guerre de course*. On the other hand, his writings played the same role as did those of Admiral Mahan in the United States--they were used as textbooks and points of departure for internal government position papers. Castex's published ideas in *Théories stratégiques* made him the obvious choice to direct the new *Collège des hautes études de la défense nationale*. *Théories stratégiques* was fully translated into Japanese and into Spanish by the Argentine Navy. Various sections were translated into Serbo-Croat, Greek, and Russian. The book has been widely used in Latin American and Mediterranean countries. The renowned American strategic thinker Bernard Brodie paid Castex homage in his *A Layman's Guide to Naval Strategy* by stating that "the underlying value of the teachings of men like Mahan, [Sir Julian S.] Corbett, and Castex is still largely intact."⁹

With the Second World War came major changes to doctrine in the French Navy and combat interaction with the U.S. Navy and other allies. Free French Navy forces during World War II were quick to abandon their own pre-war doctrine and adapt to allied navy doctrine. Where there was a choice between allies, the

French were usually more likely to accept American doctrine instead of British. Following World War II, France turned a good deal of its attention to the recovery and defense of overseas colonies. Most of this effort did not require navy forces for fleet versus fleet interaction, yet the French concepts for operations from the sea using aircraft carriers were based upon American navy doctrine rather than the British model.

One of the more interesting authors on navy matters during the post-World War II-era was Vice Admiral Pierre Barjot. Admiral Barjot embraced the American method of antisubmarine defense (offensive striking forces) and not the British (defensive convoys). Admiral Barjot authored a number of books, including, *Vers la marine de l'âge atomique* (1955) and *Histoire de la guerre aéronavale* (1961). A section of *Vers la marine de l'âge atomique* discusses French Naval doctrine and, in general, the book favors the U.S. Navy as a model for the French Navy. Admiral Barjot's writings attracted the attention of the U.S. Navy.¹⁰

During the Cold War, the French Navy developed into a serious combat force with the most modern implements of war. Technological innovation continued with the leading place given to the development of surface-to-surface missiles. French Navy doctrine was developed for interactions against fleets of medium powers or to deny the full use of the fleet of a major power. With the predominance of the strategic nuclear force, the resulting role for conventional navy forces might be to sweep the seas ahead of a missile-firing submarine to ensure that it would get to its launch position unaffected by enemy anti-submarine forces.¹¹ France developed her own doctrine for naval diplomacy. Rather than having large numbers of overseas stationed combat forces like the Americans, or the "swing-through" doctrine of the Royal Navy, the French often performed naval diplomacy with station-keeping ships with limited combat potential.

Doctrinal development was enhanced with the introduction by Admiral Marcel Duval of new courses at the *École supérieure de guerre de la Marine*. Then-Commander Michel Tripier completed the *Fondements et principes de stratégie maritime* (1977), but this paper was circulated only amongst Navy circles until an extract, "Les missions navales," appeared in the April 1990 issue of *Stratégique*. Rear Admiral Hubert Moineville, FN (Ret.), prepared an excellent book *La guerre navale* (1982) which was translated into English. *La guerre navale* examines many doctrinal issues that were debated during the Cold War. Among those is the issue

of using conventional, or general purpose, navy forces to ensure the combat stability of nuclear missile submarines.

Admiral Pierre Lacoste wrote *Stratégies navales du présent* (1981), which was well received in France. A more recent work outlining the history of naval thought in France and elsewhere is the edited books of Hervé Coutau-Bégarie, *L'évolution de la pensée navale* (1990-95). *L'évolution de la pensée navale* provides an excellent source of doctrinal history and should be translated into English for the wider audience it deserves. Finally, Vice Admiral Michel Tripier completed *Le Royaume d'Archimède* in 1993, just prior to his untimely death.

Analysis of Doctrinal Lessons of the French Navy

Even this brief review of the 300+ year history of French Navy doctrine reveals a treasure trove of doctrinal lessons that have been learned and relearned. When Rear Admiral François Joseph Paul, Comte de Grasse-Tilly, came to the aid of an embryonic United States fighting for her independence, his decisions off the Virginia Capes in 1781 were shaped by a well-developed doctrine that resulted in the proper application of combat power at sea to support the overall commander ashore. De Grasse knew what his mission was and how he should best accomplish it.

De Grasse and General George Washington disagreed, however, over the use of the French fleet. Washington originally wanted to have de Grasse make war on the fortifications of British General Lord Charles Cornwallis at Yorktown. It was because of sound French Navy doctrine, decisions, and actions taken, that de Grasse supported General Washington in a proper manner and earned the praise of a grateful nation. America remembers the strategic and operational-level vision and combat success of Admiral de Grasse.

France is also credited with pioneering work on successful multinational navy doctrine and major innovation in fleet organization as an aid to unity in action, as well as accepting the concept of fighting spirit, *élan*, as a part of combat potential. The unfortunate consequence of the concept of *élan* was an unwarranted faith by some French governments that superiority in warfighting spirit would make up for materiel and training deficiencies. We would hope that today, wiser governments on both sides of the Atlantic recognize they simply must provide the

materials and resources necessary to maintain combat effectiveness.

The brutal effect of changes in governments in France following the French Revolution and during and after World War II had another effect on doctrine that may still be of interest today. During drastic changes in French governments, the officer corps generally suffered disproportionately. Changes in government resulted in massive losses in corporate military knowledge and in the ability to rapidly substitute new ideas. Today, as Western countries are seeing the wholesale release of combat-proven officers into civilian life, we risk losing the corporate knowledge of how to fight unless we take the time to document their knowledge in formal written doctrine. We must write down our combat doctrine as we enter another period of "long peace."

Without combat to stimulate doctrinal development, we must turn to other sources for such kindling. One (but not the only) source of doctrinal stimulation is new technology. Generally new technologies are often thought to automatically lead to improvements in combat potential. The lesson of the *jeune école*, however, is that, unless the full implications of new technologies are explained to governments, there is a good chance that they will seize the opportunity to reduce force structure (and therefore capability), resulting in impairment of the military Services. Today we in the United States face similar challenges with the *Bottom-up Review* claiming that, with improved technology, a smaller force structure can do as much as the larger forces of the 1980s.¹² Force structure reductions may nonetheless come about if governments are told that a new technology also allows attainment of political objectives at reduced cost. In short, military officers should well understand all ramifications of new technologies, including negative ones, before promoting them as panacea. As professionals, they should be ready to explain why you still need redundancy, etc., even when new technologies seem to promise an ability to do everything with so few resources.

On the other hand, many of the officers of the *jeune école* have earned an unfair reputation for being short-sighted when, perhaps, they were trying to do the best they could under the political and fiscal circumstances which were their reality. We will again need officers who are capable of doing the best they can with the fleet they will be given. The alternative is to end up with a fleet of "gunboats," and the like, as did the U.S. under the presidency of Thomas Jefferson.¹³

The history of the French Navy is one of being mismanaged by kings and governments who could have known better. In the words of a well-respected scholar, Ernest H. Jenkins "...France has had little just cause to be ashamed of her navy: the navy may have had some just cause to be ashamed of France."¹⁴

Whose job is it to educate government about navies? If the navy itself is to not educate its governments, then who will? If it is the role of the navy to educate its governments, then this suggests the need for officers skilled in administrative tasks and bureaucratic maneuvering within the shore establishment and at the headquarters-level. It also suggests the need for officers who have an appreciation for the value of historical lessons, even if those lessons come from the age of sail or from battles fought before they were born. It is to one of those specific lessons from the past that I will now turn.

Importance of French Navy "Maneuver" Doctrine to the U.S. Navy Today

Today we face a shift in doctrinal paradigms that grows out of the overall change in fleet missions. The U.S. Navy has been charged to be more focused on operations from the sea to the shore,¹⁵ and is to apply the concept of "maneuver" warfare in these operations. This concept of "maneuver" warfare is based upon a decade of ground-oriented explanations. The Marine Corps and a small group of amphibious-experienced Navy officers have done an excellent job of developing the concept of "maneuver" warfare. Today we readily accept General Douglas MacArthur's New Guinea campaign during World War II or his landing at Inchon during the Korean War as the model for modern maritime "maneuver" warfare from the sea to the shore.

What remains to be done is to more fully investigate the concept of "maneuver" warfare in the deep water environment, so that all types of Navy officers throughout the world can be equal partners in the full development of naval "maneuver" warfare doctrine.¹⁶ More examples of ground warfare are not the answer. We have sufficient literature on both the theory of "maneuver" warfare as well as historical ground or amphibious examples. What we need today, and soon, are well-researched examples of past and credible future navy operations, battles, engagements, strikes, and systematic combat actions that exemplify the theory of "maneuver" warfare at sea.

The Naval Doctrine Command searched for previous writings by navy officers of "maneuver" warfare in the deep ocean environment

and again found merit in studying the lessons of the French Navy. Admiral Castex's theories were quickly recognized as being consistent with the newer ideas of U.S. Marine Corps advocates of "maneuver" warfare. Admiral Castex's concepts of "maneuver" warfare doctrine are not ideal, but they are an excellent place to start. What we can learn from Castex is relevant today.

"Maneuver" warfare doctrine, more art than science, is about careful planning and executing skillful operations or combat actions that depend upon mental agility rather than simply the application of "brute force." At a minimum, "maneuver" warfare pits strength against weakness--a concept which has long been advocated in all French Navy doctrine. "Maneuver" warfare doctrine teaches us to create favorable conditions for combat actions in which one multiplies the greatest possible return for the effort expended--another theme long present in French Navy doctrine.

The greatest problem with the concept of "maneuver" warfare doctrine in the U.S. Navy is that most native speakers of American-English assume that they know what the concept means because they recognize and routinely use the word "maneuver" when speaking about naval operations. "Maneuver" warfare at sea is not about "movement" [*cinematique*], although "moving" forces can be an extremely important element of "maneuver."

Another complication to the concept of "maneuver" warfare is the improper juxtaposition of this form of warfare against attrition warfare.¹⁷ Recent advocates of "maneuver" warfare posed "maneuver" warfare as a smarter alternative to traditional ground warfare associated with the Soviet-NATO conflict in Europe. This more recent use of the word "maneuver" in the 1980s was a part of the military reform movement which offered equal or better defense at reduced prices. An unfortunate and unintended consequence of this promotion of "maneuver" has been intellectual gymnastics as advocates ignore the lessons of history. "Maneuver" warfare is not, as advocates explain, an alternative to attrition warfare. "Maneuver" is a method of warfare that can be used either as a part of attrition warfare (combat over an extended period of time) or as a part of warfare of annihilation where one seeks victory in a single campaign. All three forms of warfare have their place in modern naval doctrine today.

Given the development of "maneuver" warfare doctrine as a means for a weaker force to engage a superior force, one might well ask why the world's only "superpower" Navy should even consider adopting such a concept. As the largest Navy in the

world, are such doctrinal concepts warranted? I think that they are, for a number of good reasons.

First, although the U.S. Navy is the world's most powerful navy, it may not be permitted to fully exercise its capabilities in future contingencies against less developed military forces. We have seen this in Korea, Vietnam, and in the more recent Persian Gulf War. It may now have to operate under political guidance that includes few, if any, military casualties. The world's most powerful navy may have to operate as if it had less capability, hence making "maneuver" concepts extremely important.

Second, although the U.S. Navy is the world's most capable navy, it is not deployed as one fleet. We routinely send small task units and task groups into regions of the world which may become volatile at virtually a moment's notice. Although these units and task groups belong to a greater whole, they may have to fight as a force equal to that of the regional enemy. Hence "maneuver" concepts may improve the combat potential of deployed units.

Third, the current national security and national military strategies of the United States¹⁸ are to deploy forward smaller force levels than in the Cold War-era. All U.S. forces today are stretched thin. We back up those forces with the ability to project power from the continental United States. These forces from North America will have to maneuver from their home bases into distant regions that place them in harm's way. Fighting "smarter", and even the grand political "maneuver" against regional adversaries, is consistent with the writings of Admiral Castex.

Fourth, it is always sound to perform good planning before any combat and "maneuver" warfare doctrine emphasizes threat evaluation and sound planning in advance of the battle. Despite our best efforts to understand potential enemies, we are not always sure about our ability to control potential threats. Any actions that are taken by the U.S. Navy to improve its preparation for combat are worthwhile. We cannot simply afford to field a force that can "bully" its way into any situation using "brute force." Mental agility is required of our operational commanders and is central to "maneuver" warfare.

Fifth, current U.S. Navy, joint, and multinational doctrine have yet to fully reflect or embrace "maneuver" warfare.¹⁹ Yet the military is being asked to consider concepts of warfare based upon the information "revolution" or some new "wave" or style of

war. Should, or can, the armed forces skip over the "maneuver" stage and advance directly into some new epoch? Although this is tempting, the risk is that one cannot fully exploit the benefits of the information age without having first mastered the concepts of "maneuver" warfare doctrine.

After all, "maneuver" warfare doctrine is mostly about how to think about war and plan combat actions. If the next era is information-based, we would be unable to fully exploit this stage unless we had first learned how to "maneuver" through the information highway, matching strength against weakness and denying information to the enemy. Our recent collective and individual efforts to improve intelligence capabilities are a natural precondition for both "maneuver" warfare doctrine and information warfare.

"Maneuver" warfare doctrine in the U.S. Navy is, at the current stage, a set of organizing principles for doctrinal development. In reviewing the writings of Admiral Castex and other classic French naval theorists, we have embarked on a journey of discovery. Our first efforts will be to review naval history for good examples of "maneuver" warfare. These include the use of the concept by the Imperial Japanese Navy, the British in the Falklands War, and our own use at the Battle of the Philippine Sea. We have uncovered many examples of "maneuver" in which enemy fleets were destroyed before they ever set out to sea, such as at Palermo in June 1676, when France gained domination of the Mediterranean. There is clearly more to learn here, and I invite your participation.

Conclusions

Doctrine is an extremely powerful tool that can be used to improve combat potential without making improvements to existing ships and aircraft. In an era of fiscal austerity, navies throughout the world will need to turn to alternative methods of increasing combat power. Doctrine can be used as a vision of a future battlespace which sets the goals for programmatic response. Doctrine as a potential force multiplier is a valuable lesson on both sides of the Atlantic.

Without a recent history of formal doctrine development and lessons learned from the process, the U.S. Navy initially turned to history and lessons that could be learned from the great classic sea powers of the world. Those lessons have proved instrumental in our own efforts to learn about the theory of doctrine and the process of doctrine development. The strong

legacy of navy doctrine in France has proved to be one of the most important sources of lessons learned for the U.S. Navy today.

Notes

1. For additional details, see James J. Tritton, "Naval Perspectives on Military Doctrine," *Naval War College Review*, 48, no. 2 (Spring 1995): 22-38.

2. This paper draws heavily upon: Captain Alfred Thayer Mahan, USN, *The Influence of Sea Power Upon History, 1660-1783*, Boston, MA: Little, Brown & Co., 1890, p. 189, 252, 263, 353, 449-467; Captain Alfred Thayer Mahan, USN, *The Influence of Sea Power Upon the French Revolution and Empire, 1793-1812*, New York, NY: Greenwood Press, Publishers, 1968 [reprint of Little, Brown & Co. edition of 1892], vol. I, p. 35-69, 160, 179; Rear Admiral S.S. Robison, USN (Ret.), *A History of Naval Tactics From 1530 to 1930*, Annapolis, MD: U.S. Naval Institute, 1942; E.[lmer] B.[elmont] Potter and Fleet Admiral Chester W. Nimitz, USN, eds., *Sea Power: A Naval History*, Englewood Cliffs, NJ: Prentice-Hall, Inc., 1960; Ernest H. Jenkins, *A History of the French Navy: From its Beginnings to the Present Day*, London, UK: MacDonald and Jane's, 1973; Clark G. Reynolds, *Command of the Sea: The History and Strategy of Maritime Empires*, New York, NY: William Morrow & Co., 1974; Helmut Pemsel, *A History of War at Sea: An Atlas and Chronology of Conflict at Sea from Earliest Times to the Present*, Major i.G.D.G Smith, trans., Annapolis, MD: Naval Institute Press, 1977 [translation of *Von Salamis bis Okinawa* first published in 1975]; Geoffrey Till, *Maritime Strategy and the Nuclear Age*, 2nd ed., New York, NY: St. Martin's press, 1984, p. 23, 34-38, 49-51; Brian Tunstall, *Naval Warfare in the Age of Sail: The Evolution of Fighting Tactics 1650-1815*, Dr. Nicholas Tracy, ed., Annapolis, MD: Naval Institute Press, 1990; Admiral Raoul Victor Patrice Castex, *Strategic Theories*, edited, with an introduction by Eugenia C. Kiesling, Annapolis, MD: Naval Institute Press, 1994; and two of my own previous works, "Navy and Military Doctrine in France," to appear in *Doctrine Reader*, Newport Paper #9, Newport, RI: Naval War College Press (forthcoming 1996) [appears previously as NDC-3-00-005, Norfolk, VA: Naval Doctrine Command, October 1994, 36 p.], and "'Maneuver' or Manoeuvre Warfare for the U.S. Navy?" NDC 3-00-010, Norfolk, VA: Naval Doctrine Command, July 1995, 28 p.

3. "The Maritime Strategy," Supplement to the United States Naval Institute *Proceedings*, January 1986, 47 p.

4. Current conventional wisdom says that the U.S. Navy never has had a centralized military doctrine. In point of fact, the U.S. Fleet in World War II operated under a series of hierarchical doctrinal publications. At the top was: Commander in Chief, United States Fleet, *War Instructions: United States Navy*, F.T.P. 143 and F.T.P. 143(A), Washington, DC: U.S. Government Printing Office, 1934 and 1944. Subordinate to these was: Chief of Naval Operations, *General Tactical Instructions*, 1934, F.T.P. 142, Washington, DC: U.S. Government Printing Office, 1934. Next in the hierarchy was Commander in Chief, United States Fleet, *Current Tactical Orders and Doctrine*, 1941, U.S.F. 10, Washington, DC: U.S. Government Printing Office, 1942. The U.S. Pacific Fleet created its own doctrine once war experience had been internalized: Commander in Chief, U.S. Pacific Fleet, *Current Tactical Orders and Doctrine U.S. Pacific Fleet (PAC-10)*, Cincpac File Pac-32-tk, A7-3/A-16-3/P, Serial -1338, June 10, 1943. Additional type doctrines and tactical orders were prepared for each class of ship. For a schematic of all these different types of doctrines, see PAC-10, Figure 1 and p. v. Immediately following World War II, the U.S. Navy convened a Tactical Publications Panel which reviewed this hierarchy. A new series of doctrinal publications were commissioned. At the top was the Chief of Naval Operations' *Principles and Applications of Naval Warfare: United States Fleets*, 1947, USF-1, Washington, DC: Office of the Chief of Naval Operations, 1 May 1947, signed by Admiral of the Fleet Chester W. Nimitz, USN, and applicable to both the Atlantic and Pacific Fleets.

5. Naval Doctrine Command, *Naval Warfare*, NDP-1, Washington, DC: U.S. Government Printing Office, 28 March 1994, 74 p. The other two doctrinal messages are the offensive and "maneuver" warfare.

6. I am indebted to Dr. Michael Palmer, East Carolina University for this information. Dr. Palmer reviewed the original text and saw how the reference was marked out by the publisher. The marked out reference to the original French text is still visible to the eye if one holds up the page to the light. Admiral Bertrand François Mahé de La Bourdonnais was in the service of the French East India Company and not the French Navy. His signals system was also contained in *Le manoeuvrier ou essai sur la théorie et*

la théorie et la pratique des mouvements du navire et des évolutions navales (1765) by Captain Jacques Bourdé de Villehuet, another French East India Company officer. *Manoeuvrier* was subsequently translated into English by the Chevalier de Sauseuil in 1788. La Bourdonnais' signals were also translated by Rear Admiral Richard Kempenfelt, chief of staff of the British Channel Fleet, sometime before 1781.

7. Admiral Raoul Victor Patrice Castex, *Theories stratégiques*, in 5 vols., Paris: Société d'Éditions Géographiques, Maritimes et Coloniales, 1929-1935. Volume 2 is the source of Castex's principal thought on "maneuver" warfare doctrine.

8. *Strategic Theories*, selections translated and edited, with an introduction by Eugenia C. Kiesling, Annapolis, MD: Naval Institute Press, 1994. Professor Kiesling translated three of nine chapters and an appendix from the critical second volume dealing with "maneuver" warfare doctrine. The sections that were not translated by Professor Kiesling have been translated for the Naval Doctrine Command's internal efforts to gain a better understanding of the concept of "maneuver." Professor Kiesling also deserves much credit for her original analysis of the writings of Castex, much of which I have adopted herein.

9. Bernard Brodie, *A Layman's Guide to Naval Strategy*, London, UK: Oxford University Press, 1943, p. x.

10. Translations of comments by Vice Admiral Pierre Barjot during the 1950s can be found in declassified issues of the *ONI [Office of Naval Intelligence] Review*. For example, in a series of translations entitled "The Postwar French Navy," *ONI Review*, 9, May 1954, p. 195, Admiral Barjot discussed the American and British methods of antisubmarine defense. Many of these can be found in the Operational Archives of the Naval Historical Center.

11. James Cable, *Gunboat Diplomacy, 1919-1979: Political Applications of Limited Naval Force*, London, UK: The MacMillan Press, Ltd., 2nd ed., 1981, p. 138.

12. Les Aspin, Secretary of Defense, *Report of the Bottom-Up Review*, Washington, DC: U.S. Government Printing Office, October 1993, p. 2, 19-20, 30, 33-34.

13. For one of the most devastating denunciations of an American President, see Captain Alfred Thayer Mahan, USN, *Sea Power in its Relations to the War of 1812*, New York, NY: Greenwood Press, 1968 [originally published in 1903], vol. I, pp. 74, 140, 187, 188, 196, 202, 260-263, 280-281, 290-291, 336; vol. II, pp. 265, 334.

14. Ernest H. Jenkins, *A History of the French Navy: From its Beginnings to the Present Day*, London, UK: MacDonald and Jane's, 1973, p. 344.

15. Department of the Navy, ...*From the Sea: Preparing the Naval Service for the 21st Century*, Washington, DC: U.S. Government Printing Office [September 1992], 15 p.; and *Forward...From the Sea*, Washington, DC: U.S. Government Printing Office [September 1995] 10 p.

16. For additional information on the initial research into "maneuver" warfare, see James J. Tritten: "'Maneuver' or Manoeuvre Warfare for the U.S. Navy?" NDC 3-00-010, Norfolk, VA: Naval Doctrine Command, July 1995, 28 p.; or "Maneuver Warfare at Sea," U.S. Naval Institute *Proceedings* 121, no. 9 (September 1995): 52-54.

17. Headquarters, United States Marine Corps, *Warfighting*, FMFM [Fleet Marine Force Manual] 1, Washington, DC: 6 March 1989, p. 28-30, 59. See also Naval Doctrine Command, *Naval Warfare*, NDP [Naval Doctrine Publication]-1, Washington, DC: U.S. Government Printing Office, 28 March 1994, p. 31-33; and Commander Linton Wells II, USN, "Maneuver in Naval Warfare," U.S. Naval Institute *Proceedings*, 106, no. 12 (December 1980): 34.

18. The White House, *A National Security Strategy of Engagement and Enlargement*, Washington, DC: U.S. Government Printing Office, February 1995, 33 p; and Chairman of the Joint Chiefs of Staff, *National Military Strategy of the United States of America 1995: A Strategy of Flexible and Selective Engagement*, Washington, DC: U.S. Government Printing Office, February 1995, 20 p.

19. Joint Chiefs of Staff, *Joint Doctrine for Multinational Operations*, draft Joint Pub 3-16, dated March 1995, p. III-10 and III-11 states: "US joint doctrine stresses rapid, agile operations emphasizing ingenuity, creativity and improvisation within the

guidelines provided by the overall commander's intent. Some nations may regard this approach as too risky."

DISTRIBUTION LIST

Commander (00)	1
Naval Doctrine Command	
1540 Gilbert Street	
Norfolk, VA 23511-2785	
Deputy Commander (01)	1
Naval Doctrine Command	
1540 Gilbert Street	
Norfolk, VA 23511-2785	
Center for Naval Analyses Representative (02EG)	1
Naval Doctrine Command	
1540 Gilbert Street	
Norfolk, VA 23511-2785	
Science Advisor (02SA)	1
Naval Doctrine Command	
1540 Gilbert Street	
Norfolk, VA 23511-2785	
Technical Librarian (02T3)	1
Naval Doctrine Command	
1540 Gilbert Street	
Norfolk, VA 23511-2785	
Naval Doctrine Development Division (N3)	1
Naval Doctrine Command	
1540 Gilbert Street	
Norfolk, VA 23511-2785	
French Liaison Officer	1
Doctrine Development Division (N332F)	
Naval Doctrine Command	
1540 Gilbert Street	
Norfolk, VA 23511-2785	
Awareness Division (N7)	1
Naval Doctrine Command	
1540 Gilbert Street	
Norfolk, VA 23511-2785	
Strategy and Concepts Division (N8)	1
Naval Doctrine Command	
1540 Gilbert Street	
Norfolk, VA 23511-2785	

Commanding Officer Naval Reserve Naval Doctrine Command 106 1540 Gilbert Street Norfolk, VA 23511-2785	1
Dr. James J. Tritten USACOM Joint Training, Analysis, & Simulation Center 116 Lakeview Parkway, Suite 2170 Suffolk, VA 23435-2697	3
Joint Doctrine Division Air Force Doctrine Center 216 Sweeney Blvd., Suite 109 Langley AFB, VA 23665-2792	1
Headquarters Joint Doctrine Division Deputy Chief of Staff for Doctrine Attn: ATDO-J U.S. Army Training and Doctrine Command Fort Monroe, VA 23651	1
Defense Technical Information Center Attn: DTIC-OCC Building 5 Cameron Station Alexandria, VA 22304-6145	2
Joint Warfighting Center Attn: Joint Electronic Library (JEL) Building 100, Ingalls Road Fort Monroe, VA 23651-5000	1
Library Center for Naval Analyses 4401 Ford Avenue Alexandria, VA 22302-0268	1
Armed Forces Staff College Attn: LIB/62 7800 Hampton Blvd. Norfolk, VA 23511-1702	1
Pentagon Library Room 1A518 Department of Defense Washington, DC 20301	1

Library	1
Naval Historical Center	
Building 57	
Washington Navy Yard	
901 M Street, S.E.	
Washington, DC 20374-0571	
 Dudley Knox Library	 1
Naval Postgraduate School	
Monterey, CA 93943-5100	
 Director, Navy Element	 1
Attn: ATZL-SWL-N	
U.S. Army Command and General Staff College	
1 Reynolds Avenue	
Fort Leavenworth, KS 66027-1325	
 Dr. Gideon Y. Akavia	 1
CEMA - Center for Military Analyses	
P.O. Box 2250 (28)	
31021 Haifa, Israel - <i>via air mail</i> -	
 Professor John Ballard	 1
Armed Forces Staff College	
7800 Hampton Blvd.	
Norfolk, VA 23511-1702	
 Dr. Roger Barnett	 1
Member NDC Academic Advisory Group	
Center for Naval Warfare Studies	
Naval War College	
686 Cushing Road	
Newport, RI 02841-5010	
 Captain Benedittini, FN	 1
CiD - MTA/Grooupement Marine	
21 Place Joffre	
00450 Armés, Paris, France - <i>via air mail</i> -	
 Dr. Donald F. Bittner	 1
Member NDC Academic Advisory Group	
U.S. Marine Corps Command & Staff College	
2076 South Street	
Marine Corps Combat Development Command	
Quantico, VA 22134-5068	

<p>Commander Joseph F. Bouchard, USN Head, Strategy and Concepts Branch OPNAV N513 Pnt Room 4E514 Office of the Chief of Naval Operations 2000 Navy Pentagon Washington, DC 20350-2000</p>	1
<p>CAPT Alain Delbury, FN French Military Mission to SACLANT 7857 Blandy Road, Suite 100 Norfolk, VA 23551-2490</p>	1
<p>CAPT de Longevialle, FN French Naval Attache Embassy of France 4101 Reservoir Rd., NW Washington, DC 20007-2171</p>	1
<p>RADM Jean L. Duval, FN Centre d'Enseignement Superieur de la Marine 21 Place Joffre 75700 Paris, France - <i>via air mail</i> -</p>	1
<p>Dr. Thomas Grassey Editor, Naval War College Review - Code 32 Naval War College 686 Cushing Road Newport, RI 02841-1207</p>	1
<p>Dr. Kenneth J. Hagan Member NDC Academic Advisory Group 501 Ridgely Avenue Annapolis, MD 21401</p>	1
<p>Dr. John T. Hanley, Jr. Program Director for Strategic Studies Center for Naval Warfare Studies Naval War College Newport, RI 02841-5010</p>	1
<p>Dr. John Hattendorf Director, Advanced Research Department - Code 35 Naval War College 686 Cushing Road Newport, RI 02841-1207</p>	1

Major General I.B. Holley, USAFR (Ret.) Professor Emeritus Department of History 226 Carr Building - East Campus Duke University P.O. Box 90719 Durham, NC 27708-0719	1
CAPT Wayne Hughes, USN (Ret.) Member NDC Academic Advisory Group Department of Operations Research Naval Postgraduate School Code OR/H1 Glasgow Hall Room 239 1411 Cunningham Road Monterey, CA 93943-5219	1
Dr. Michael T. Isenberg Member NDC Academic Advisory Group Department of History U.S. Naval Academy Sampson Hall Room 308 107 Maryland Ave. Annapolis, MD 21402-5030	1
Dr. John H. Johns Dean of Faculty and Programs Industrial College of the Armed Forces, Room 228 Fort Leslie J. McNair Washington, DC 20319-6000	1
Professor David Keithly Armed Forces Staff College 7800 Hampton Blvd. Norfolk, VA 23511-1702	1
Professor Kevin Kelly National Strategy Decisionmaking Department - Code 1B Naval War College 686 Cushing Road Newport, RI 02841-1207	1
Dr. Jennie Kiesling History Department Thayer Hall U.S. Military Academy West Point, NY 10996-1793	1

Dr. Jacob W. Kipp Foreign Military Studies Office (FMSO) Attn: ATZL SAS U.S. Army Command & General Staff College Fort Leavenworth, KS 66027-5015	1
Rear Admiral Jean Kessler, FN (Ret.) Chef du Service Historique de la Marine Pavillion de la Reine Château de Vincennes B.P. N° 2 00300 Armées, France - <i>via air mail</i> -	1
CAPT Ryan McCombie, USN ATTN: USAWC/AWC-J Army War College Carlisle Barracks, PA 17013-5050	1
Captain Richard Miller, USN Head, Europe and Eurasia Politico-Military Affairs Branch OPNAV N524 Pnt Room 4E483 Office of the Chief of Naval Operations 2000 Navy Pentagon Washington, DC 20350-2000	1
Dr. Allan R. Millett Member NDC Academic Advisory Group Mershon Center The Ohio State University 1501 Neil Avenue Columbus, OH 43201-2602	1
Dr. James A. Mowbray Code AWC/DFX Air War College Maxwell AFB, AL 36112-6427	1
Professor Paul Odell Strategy Department - Code 1A Naval War College 686 Cushing Road Newport, RI 02841-1207	1
Dr. Michael Palmer Member NDC Academic Advisory Group Admiral Eller Building Program in Maritime History and Nautical Archeology East Carolina University Greenville, NC 27858	1

CAPT John N. Petrie, USN
Director of Writing & Research
Code: NWC-NWFA
National War College
Ft. Leslie J. McNair
Washington, DC 20319-6000

1

Dr. Peter Purdue
Member NDC Academic Advisory Group
Dean of Operational and Applied Sciences
Code 08, Room M6A
Herrmann Hall, Building 220
Naval Postgraduate School
Monterey, CA 93943-5000

1

Dr. Robert Rau
Member NDC Academic Advisory Group
Department of Political Science
Nimitz Library Room 37A
U.S. Naval Academy
589 McNair Road
Annapolis, MD 21402-5030

1

Dr. David A. Rosenberg
Member NDC Academic Advisory Group
Department of History
Temple University
950 Gladfelter Hall
Philadelphia, PA 19122

1

CAPT Peter Swartz, USN (Ret.)
Center for Naval Analyses (CNA)
4401 Ford Avenue
Alexandria, VA 22302-0268

1

LTC John Taxeras, USMC
Attn: Code C400P2
Marine Corps University
Marine Corps Combat Development Command (MCCDC)
2076 South Street
Quantico, VA 22134-5021

1

Dr. Frank Teti
Chairman, Department of National Security Affairs
Naval Postgraduate School
Code NS
Glasgow Hall 302 Room 319B
1411 Cunningham Road
Monterey, CA 93943-5100

1

Dr. Milan Vego Member NDC Academic Advisory Group Department of Operations 686 Cushing Road Naval War College Newport, RI 02841-5010	1
CAPT James Wylie, USN U.S. Naval Attache USDAO American Embassy - Paris PSC 116 Box B210 APO AE 09777	1
Navy Element Code: AU/CCN Air War College 325 Chennault Circle Maxwell AFB, AL 36112-6427	1
Professor David Winterford Armed Forces Staff College 7800 Hampton Blvd. Norfolk, VA 23511-1702	1
Dr. Harold R. Winton Code ACSC/AS School of Advanced Airpower Studies 600 Chennault Circle Maxwell AFB, AL 36112-6426	1
Dr. Robert Wood Member NDC Academic Advisory Group Dean, Center for Naval Warfare Studies 686 Cushing Road Naval War College Newport, RI 02841-1207	1